An antibody- toxic moiety conjugate comprising: an antibody that specifically recognizes a molecule expressed only on activated T cells and a toxic moiety.

- 2. The antibody-toxic moiety conjugate of claim.1, wherein the antibody is specifically reactive with CTLA4.
- 3. The antibody- toxic moiety conjugate of claim 2, wherein the antibody is specifically reactive with human CTLA4.
- 4. The antibody-toxic moiety conjugate of <u>claim</u> 2, wherein the antibody is a monoclonal antibody.
- 5. The antibody-toxic moiety conjugate of claim 2, wherein the antibody binds to a region of the CTLA4 molecule that blocks the binding of CTLA4 to CD80 or CD86.
- 6. The antibody-toxic moiety conjugate of claim 2, wherein the antibody binds to a region of the CTLA4 in spatial proximity to the site of CTLA4 binding to a costimulatory molecule.

7. The antibody- toxic moiety conjugate of claim 2, wherein the substitution of amino acid 83 in the amino acid sequence of human CTLA4 shown in SEQ ID NO:2 results in modulation of binding of the antibody.

8. The antibody- toxic moiety conjugate of claim 2, wherein the toxic moiety is a carbohydrate.

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- 9. The antibody- toxic moiety conjugate of claim 8, wherein the carbohydrate is calicheamicin.
- 10. The antibody- toxic moiety conjugate of claim 2, wherein the toxic5 moiety is a naturally occurring bacterial product.
  - 11. The antibody- toxic moiety conjugate of claim 10, wherein the toxic moiety is selected from the group consisting of ricin A chain and saporin.
- 12. The antibody- toxic moiety conjugate of claim 2, wherein the antibody is produced by a hybridoma selected from the group consisting of: ATCC Accession No.\_\_\_ (hybridoma ), and ATCC Accession No.\_\_\_ (hybridoma ), and ATCC Accession No.\_\_\_ (hybridoma ).

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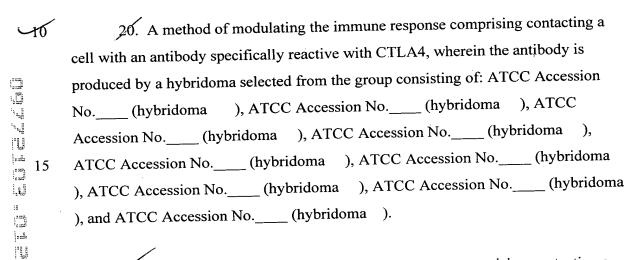
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13. The antibody- toxic moiety conjugate of claim 2, wherein the antibody is humanized.

14. A humanized antibody that is specifically reactive with human CLTA4, wherein the antibody comprises an amino acid sequence shown in SEQ ID NO:8.

- 15. A humanized antibody that is specifically reactive with human CLTA4, wherein the antibody comprises an amino acid sequence shown in SEQ ID NO:10.
- A method of modulating the immune response comprising contacting a cell with an antibody- toxic moiety conjugate of claim 2.
- 30 17. The method of claim 16, wherein the antibody- toxic moiety conjugate is administered to a subject and the step of contacting is performed *in vivo*.

- 18. The method of claim 17, wherein the subject is suffering from a disorder or condition that would benefit from downmodulation of an ongoing immune response wherein the disorder or condition is selected from the group consisting of: an autoimmune disorder, an immune response to a graft, an allergic response, an immune response to a therapeutic protein.
- 19. The method of claim 16, wherein the step of contacting is performed in vitro.



21. A method of modulating the immune response comprising contacting a cell with an antibody specifically reactive with human CLTA4, wherein the antibody comprises an amino acid sequence shown in SEQ ID NO:8.

22. A method of modulating the immune response comprising contacting a cell with an antibody specifically reactive with human CLTA4, wherein the antibody comprises an amino acid sequence shown in SEQ ID NO:10.

23. A method of downmodulating the immune response comprising contacting a cell with an antibody-toxic moiety conjugate, wherein the antibody specifically recognizes CTLA4.

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